

REMARKS

This is in response to the final rejection mailed May 20, 2003 in the above identified application, which application is related to candles or lamps comprising a solid fuel element selected from gels and solid waxes, a consumable wick, and a heat conductive container for said fuel element, wherein the container is configured so as to cause melted fuel to flow to the wick, and wherein said heat conductive container further comprises heat conductive elements to channel heat from a flame upon the wick to the container to cause said fuel element to more rapidly melt. The heat conductive elements of said melting plate, upon which said fuel rests, comprise heat conductive lobes to transfer heat from the flame to the fuel element, whereby a pool of heated liquid fuel is created. Further improvements include the use of wick holders with fins, which further absorb heat from the flame on the wick and transmit such heat to either the fuel element or to the melting plate, whereby additional fuel is melted.

The Examiner, in the Final Rejection of May 20, has indicated the allowability of claims 28 and 31, while rejecting all other claims. Claims 21, 24 - 26, 29, 30, and 32 are rejected under 35 USC 102(b) as anticipated by, or in the alternative under 35 USC 103(a) as obvious over Neil. Claims 33, 34, and 36 are rejected under 35 USC 102(b) as being anticipated by Jung. Claims 35 and 37 are rejected under 35 USC 103(a) as being unpatentable over Jung in view of Tsuda et al. On the other hand, claims 28 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Upon review of claims 28 and 31, it is noted that the distinguishing feature of each of these claims is that the heat conductive element is a lobe. Hence, it is submitted that if the claims of this application clearly denote this distinguishing feature, in conjunction with the limitations of previous claims 26 and 30, from which said claims 28 and 30 were dependent, such claims may be anticipated to be considered allowable. Accordingly, a clean slate of claims is submitted herewith, in which all claims designate

that the heat conductive concave melting plate comprises a heat conductive lobe, and contain the basic language of the previous claims 26 and 30. In addition to this distinction, applicants offer the following comments relative to the references as applied.

The Neil reference is cited as teaching a candle having a metal wick holder, which the Examiner states has fins and transmits heat to the surrounding fuel and to the container. The element identified by the examiner as a wick holder with fins is, in fact, a stiffener for the wick itself, which fits over the stiffener. The stiffener, 28 or 38, is supported by base portion 25 of sufficient size to render the wick free-standing by supporting the weight of the wick (Column 2, lines 58 -66). Further, at Column 3, lines 13 - 27, the stiffener is identified as being a metallic strip bent to the configuration shown in Figure 3, and arguably could function as fins to carry heat to the fuel. While the Examiner has acknowledged that the heat conductive lobe of claims 28 and 31 provides a patentable distinction over the Neil reference, as well as all other references of record, it is also to be noted that the Neil patent recites that the wick is a non-consumable wick (Column 2, lines 49 - 54, and Claim 1, line 5). In light of this additional distinction, it is submitted that the Neil reference fails as a reference under 35 USC 102(B) relative to all claims in the application at the time of the Final Rejection, since all claims of this application have recited the use of a consumable wick. Further, in light of the amendment of the claims set forth hereinabove, in which all claims now designate the use of a consumable wick and that the heat conductive concave melting plate comprises a heat conductive lobe, the present claims of this application are clearly patentable over the Neil patent, under both 35 USC 102 and 35 USC 103. Independent claims 38 and 48, specifically, are submitted herewith in lieu of previous claims 26 and 30, amended as set forth above to be clearly patentable over all prior art of record.

The Examiner has also rejected Claims 33, 34, and 36 under 35 U.S.C. 102(b) as being anticipated by Jung (DE 3403604). In the Final Rejection, the Examiner states that "Jung discloses the invention as claimed including a consumable wick 8 (see page 7, line 36), solid fuel made of wax (see page 7, line 22), a starter bump (bulge 9)

separated from the wick 8 by indent 10. Figure 3 shows the metal container 3 directing the flow of liquid contents to the wick. Because the container 3 is made of metal, a heat conductive material, and this metal container is attached to the heat conductive tube 4, it is configured to melt a solid fuel element, at least to some degree." First, the Examiner cites page 7, lines 36 and 22, relative to the consumable wick and wax fuel, respectively. Since the translation provided to the Examiner does not have a page 7, it is assumed that the Examiner is referencing the original German language document. Upon close review of the German patent document, Applicants concede that the reference does appear to teach a base candle of wax (page 7, line 22) and that the candle wick may comprise a cotton fabric (page 7, lines 21 - 22). However, Applicants are in disagreement with the Examiner's conclusions relative to claims 33, 34, and 36.

Former Claims 33 and 34 were directed to a solid replacement element for a melting plate candle fuel holder, said element comprising a solid fuel configured to cooperatively engage said fuel holder, and having a starter bump on the top surface in close proximity but not in contact with the wick for ease of lighting said wick, either with a wick or without a wick present in the replacement element. The disclosure of the Jung patent specifies at page 3, lines 9 - 10 of the translation, and at page 3, lines 1 - 4 of the original German document, that "The invention concerns a candle with a wick held in a wick holder and a candle base of wax, stearin or the like, which is held in a deep cup." Further, the wick is held by a metal tube wick holder having an absorbent body (cotton) between the wick and the metal tube. Clearly, the reference fails under 35 USC 102 as teaching a replacement element for insertion into a melting plate candle fuel holder (presumably the deep cup of the reference). There is simply no teaching in the patent of either a wax body for use as a replacement body (claims 33 and 34), or a wickless candle body (claim 34).

Previous Claim 36, on the other hand, recited a melting plate fuel holder comprising a heat conductive container having affixed thereto a consumable wick, said container configured so as to cause the flow of liquid contents to the wick and to

engage and melt a solid fuel element. Even if one were to equate the deep cup of Jung with the heat conductive container of the present application, there is no teaching in the Jung patent of the deep cup having affixed thereto a consumable wick. Rather, the Jung patent teaches that the wick holder is affixed to the container, such as by adhesive, and that the wick stands in the metal tube which extends the length of the candle base. Accordingly, the reference fails under 35 USC 102 as teaching the fuel holder of the present invention. It is submitted that the Jung reference was inappropriately applied to claims 33, 34, and 36 in the Final Rejection.

Moreover, claims 33, 34, and 36 have now been cancelled in favor of dependent claims 39 - 47, and 49 - 57, all of which are dependent from either claim 38 or claim 48, which it is submitted, are allowable over all references of record as set forth above.

In the Final Rejection, the Examiner also rejected claims 35 and 37 under 35 USC 103(a) as unpatentable over Jung in view of Tsuda et al. The Examiner states that the Jung reference teaches the invention substantially as claimed with the exception of a heat conductive element selected from lobes and wick holders with fins. The Examiner further states that the Tsuda et al. reference discloses a heat conductive tube 20 and teaches the use of a heat-receiving portion 21 to conduct heat from the flame downward. Figures 1, 3, and 9 are said to show the heat receiving portion 21 in the form of lobes or wick holders with fins (21a), which cooperatively engage the fuel element by way of the tube (131). With the benefit of hindsight, the Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of the present invention to provide the container and candle of Jung with a heat conductive element in the form of heat receiving portion 21 in the form of lobes or wick holders with fins as taught by Tsuda et al. to conduct heat from the flame to the container. Applicants take exception to this conclusion, for the following reasons.

The Jung invention concerns a candle with a wick held in a metal tube wick holder having an absorbent body (cotton) between the wick and the metal tube, with a candle base of wax, stearin or the like, which is held in a deep cup. In Jung, the metal

tube (4) is responsible for the transmission of heat from the candle flame to the candle base material (i.e. the fuel), and is connected to the bottom of the cup, which may be either plastic or metal, by a heat-resistant adhesive, so the patentee clearly does not intend to cause heating of the fuel holder. It is noted that with progressive burning of the candle a large part of the candle base (2) in the vicinity of tube 4 has become liquefied. Thus, the melting of the candle wax is a result of heating by the metal tube, not by transmission of the heat by the tube to the bottom of the cup and further heating of the wax by the heat conductive cup. It is specifically to be noted that the cup may be of plastic, a material not noted for heat conduction. It may also be seen from figure 3 that the base of the cup does not contribute significantly to the melting of the wax, since the liquefied pool of candle wax does not extend across the diameter of the base, but only a short distance from the heating tube, while the wax at the top of the tube is melted for the full diameter of the container. Accordingly, the Jung patent neither teaches nor makes obvious the concept of the present invention, that the container melts the fuel, and that the container is configured so as to cause the flow of liquefied fuel to the wick. To the contrary, the flow of liquefied fuel to the wick is by means of the absorbent material contained within the metal tube.

Tsuda et al. teach a containerized wax candle with a wick assembly embedded in the mass of the candle wax in a container, where the wick assembly comprises a metallic wick pipe surrounding the wick, which conducts heat into the wax mass to melt the wax, which when melted flows through openings in the wick pipe to the wick. However, the wick is non-combustible (page 2, lines 92 - 95, and page 3, lines 85 -88), and the design of the wick pipe is such that little heat is conveyed to the container, i.e. the container will never be heated directly (page 2, lines 95 - 100). Thus, the goal is to achieve complete usage of the wax without conduction of heat to the container. Accordingly, the Tsuda et al. reference, which teaches the wick holder with fins (but no lobes), fails to teach conductive elements selected from the group consisting of lobes, by which heat is conducted to said container from a flame upon said wick, as recited in

claim 38 and 40, which further recite that the container is configured so as to cause the flow of liquid contents to the wick and to engage and melt a solid fuel element, again a limitation not met by the Tsuda et al. reference. Accordingly, the combination of Jung and Tsuda et al. fail to teach the invention taught by claims presented at this time, and withdrawal thereof is solicited.

As set forth above, it is believed that the references as applied by the Examiner to the claims of the application in the Final Rejection fail to teach or make obvious the invention set forth in said claims. Applicants, by the present amendment, have submitted a new slate of claims in which all independent claims incorporate the language of the previous claims and recite the presence of lobes on the heat conductive element. The new slate of claims comprises claims 38 - 57, which are thus believed to distinguish from the cited prior art and all other art of which applicants are aware.

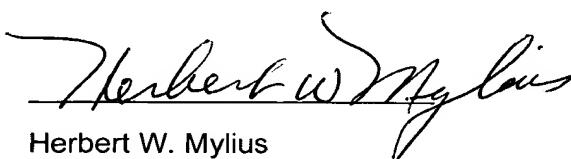
It is further submitted that Claims 38 - 57, based upon the previously submitted claims, are distinguishable on the basis of the recitations of a consumable wick, a heat conductive lobe, and the heat conductive container being configured so as to cause the flow of melted fuel to the wick.

Accordingly, Applicants respectfully request that a timely Notice of Allowance be issued in this application.

Respectfully submitted,

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